

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 27. (Cancelled)

28. (Previously Presented) A sensor, comprising:

a sensor body having a space for receiving an active protein in a solidified form; and
the active protein in said solidified form disposed within the space of the sensor body, the active protein in said solidified form comprising glucose oxidase, human serum albumin, and a cross-linking reagent, said active protein having been molded in a recess in a block of a mold and hardened into said solidified form prior to being disposed within the space of the sensor body, said active protein having been received within the space of the sensor body while in said solidified form;

wherein said active protein in said solidified form is sufficiently immobilized prior to being disposed within the space of the sensor body such that the active protein in said solidified form minimizes swelling that would deform a shape of the sensor body and such that the active protein in said solidified form minimizes shrinkage that would create voids between the active protein in said solidified form and the sensor body once the active protein in said solidified form has been received within the space of the sensor body.

29. (Cancelled)

30. (Original) A sensor according to claim 28, wherein the cross-linking reagent is selected from a group consisting of glutaraldehyde, disuccinimidyl suberate (DSS), and 1-Ethyl-3 (3-Dimethylaminopropyl) Carbodiimide (EDC).

31. (Cancelled)

32. – 34. (Cancelled)

35. (Previously Presented) A sensor according to claim 28, wherein the active protein has been exposed to said cross-linking reagent in a vapor phase that comprises approximately 12.5% (w/w) glutaraldehyde for approximately 16 hours.

36. – 37. (Cancelled)

38. (Previously Presented) A sensor according to claim 28, wherein the cross-linking reagent is glutaraldehyde.

39. – 40. (Cancelled)

41. (Previously Presented) A sensor according to claim 28, wherein the glucose oxidase has a concentration that is between approximately 67,000 U/ml and 150,000 U/ml.

42. (Previously Presented) A sensor according to claim 41, wherein the human serum albumin has a concentration that is between approximately 23% (w/v) and 32.5% (w/v) of the active protein.

43. (Previously Presented) A sensor according to claim 28, wherein the human serum albumin has a concentration that is between approximately 23% (w/v) and 32.5% (w/v) of the active protein.

44. (Previously Presented) A sensor according to claim 28, wherein the active protein further comprises silicone.

45. (Previously Presented) A sensor according to claim 44, wherein silicon particles are included in the active protein, and the volume of the silicone particles is less than 20% of the volume of the active protein.

46. - 66 (Cancelled)

67. (Previously Presented) A sensor as recited in claim 28, wherein the solidified form of the active protein comprises a pellet.

68. - 69 (Cancelled)

70. (Previously Presented) The sensor of claim 28,
wherein said active protein in said solidified form has a shape that is one of semicylindrical, cylindrical, tubular, and spherical.

71. (Previously Presented) A sensing device formed by a process, said process comprising:
providing a protein matrix in a hardened state, said step of providing said protein matrix in said hardened state comprising:

obtaining a protein mixture;

adding a cross-linking reagent to the protein mixture to form a combined mixture;

molding the combined mixture in a recess in a block of a mold; and

allowing the molded combined mixture to harden so as to form said protein matrix in said hardened state;

providing a sensor body having a cavity for receiving said protein matrix in said hardened state; and

placing said protein matrix in said hardened state into said cavity of said sensor body;

wherein said protein matrix in said hardened state is sufficiently immobilized prior to being placed within the cavity of the sensor body such that the protein matrix in said hardened

state minimizes swelling that would deform a shape of the sensor body and such that the protein matrix in said hardened state minimizes shrinkage that would create voids between the protein matrix in said hardened state and the sensor body once the protein matrix in said hardened state has been placed within the cavity of the sensor body.

72. (Previously Presented) The sensing device formed by the process of claim 71, wherein the step of allowing the molded combined mixture to harden so as to form said protein matrix in said hardened state, comprises:

allowing the molded combined mixture to harden; and

cutting the hardened, molded combined mixture so as to form said protein matrix in said hardened state in a desired shape and size.

73. (Previously Presented) The sensing device formed by the process of claim 71, wherein the step of allowing the molded combined mixture to harden so as to form said protein matrix in said hardened state, comprises:

incubating the molded combined mixture in the mold at a specified temperature for a specified period of time so as to form said protein matrix in said hardened state.

74. (Previously Presented) The sensing device formed by the process of claim 71, wherein said step of molding the combined mixture in the recess in the block of the mold, comprises:

pressing together a top block of the mold and a bottom block of the mold, said bottom block having a top surface facing said top block, said top surface of said bottom block having the recess for receiving said combined mixture; and

inserting said combined mixture into said recess in said top surface of said bottom block so as to mold said combined mixture.

75. (Previously Presented) The sensing device formed by the process of claim 71, wherein said step of molding the combined mixture in the recess in the block of the mold, comprises:

molding the combined mixture in the recess in the block of the mold to have a shape that is one of semicylindrical, cylindrical, tubular, and spherical.

76. (Previously Presented) The sensing device formed by the process of claim 71, wherein said step of molding the combined mixture in the recess in the block of the mold, comprises:

molding the combined mixture in the recess in the block of the mold to have a desired shape and size.

77. (Previously Presented) The sensing device formed by the process of claim 71, wherein said protein mixture comprises glucose oxidase and human serum albumin.

78. (Previously Presented) The sensing device formed by the process of claim 71, wherein said cross-linking reagent comprises glutaraldehyde.